

**DEPARTMENT OF TRANSPORTATION****DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
690 Walnut Ave. St. 150  
Vallejo, CA 94592-1133  
(707) 649-5453  
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-000961**Date Inspected:** 30-Nov-2007**Project Name:** SAS Superstructure**OSM Arrival Time:** 730**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1500**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See Below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

The Caltrans Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Orthotropic Box Girders (OBG).

Bay 3

OBG:

The QA Inspector randomly observed ZPMC welder Jiang Teng ID Number 046830, utilizing the Submerged Arc Welding (SAW) Process with approved ZPMC Weld Procedure Specification (WPS) WPS-B-P-2221-B-L2c-S-1 in the 1G position to weld the fill and cover passes on Weld Joint (WJ) SP057-01-053 joining SPMC Side Plate Sections PL 98 to PL 98B (T=16mm). The QA Inspector observed ZPMC CWI Lee Chan Woo monitoring weld parameters. The QA Inspector also performed random verification of the weld parameters and documented them as follows: welding amperage 520 amps, welding voltage 31 volts with a travel speed of 600 millimeters per minute. Weld parameters appeared to comply with the above approved ZPMC WPS. The attached photograph provides additional detail.

Bay 7:

The QA Inspector randomly observed ZPMC welder Jin Rong ID Number 066471, utilizing the Shielded Metal Arc Welding (SMAW) Process with approved ZPMC WPS WPS-B-P-2211-B-U2-FCM in the 1G position to tack weld run on/run off tabs to sections of diaphragms for Floor Plate FB004-04 at WJ FB004-04-020. The QA

# WELDING INSPECTION REPORT

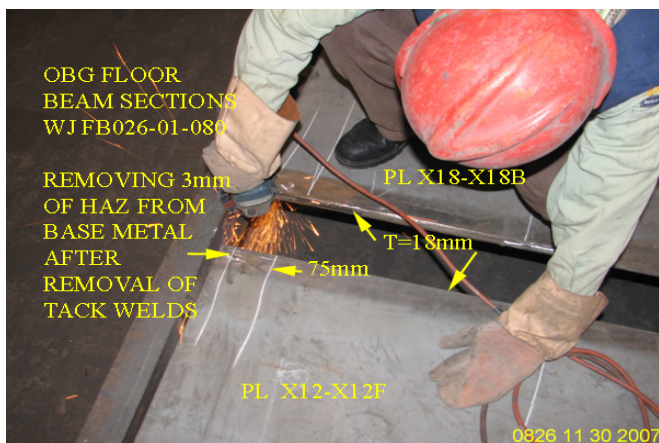
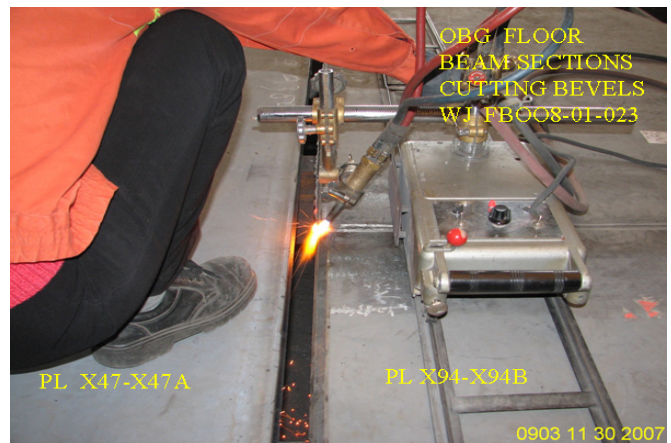
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Inspector observed ZPMC CWI Cui Yi Ru monitoring weld parameters. Weld parameters appeared to comply with the above approved ZPMC WPS.

The QA Inspector randomly observed observed ZPMC welding personnel utilizing the carbon air arc gouging process to back gouge welds in Floor Beam splices WJ's FB007-06-026, FB001-04-026, FB008-06-026, FB007-05-026, FB016-04-026 and FB008-05-026. The attached photograph provides additional detail for WJ FB008-06-026.

The QA Inspector randomly observed a ZPMC helper utilizing a grinder to remove 3 millimeter deep X 75 millimeter long sections of base metal from the adjacent edges of the Heat Affected Zone (HAZ) in the adjoining Floor Beam sections of WJ's FB026-01-080 and FB036-02-080, to allow for the repair of the base metal in the HAZ. The attached photographs provide additional detail.

The QA Inspector randomly observed a ZPMC torch beveler utilizing a track mounted torch beveling apparatus to cut the bevels in Floor Beam sections X47-X47A/X94-X94B to (12mm/30mm) to X15-X15A (12mm) at WJ FB008-01-023. The attached photograph provides additional detail.



## Summary of Conversations:

There were no relevant conversations.

## Comments

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This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mazen Wahbeh, (818) 292-0659, who represents the Office of Structural Materials for your project.

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<b>Inspected By:</b>	Franco,Charlie	Quality Assurance Inspector
<b>Reviewed By:</b>	Cochran,Jim	QA Reviewer

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